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Original Communications.

ANÆSTHETIC INHALATION.

INTRODUCTORY BY DR. HENRY J. BIGELOW.

MR. EDITOR,—In furnishing, at your request, a copy of the letter sent by the late Sir James Y. Simpson to Dr. Bigelow, now absent, let me say a few words upon the subject of a controversy in which during former years I had some part, and which from various circumstances has of late awakened a new interest.

The medical world will hear with regret of the decease of one who has occupied so distinguished a position as the late Sir James Y. Simpson, and something more than regret will be felt by the many who have enjoyed his kindness and hospitality. The present is not a time for extended controversial comment; and yet it is perhaps possible to review the positions and condense the statements of the following letter in a way to which, if it shall advance the truth at a moment when the subject is fresh in the public mind, its late distinguished writer would have been one of the last to object.

It will be seen that Sir James Y. Simpson considers the introduction of chloroform, and its substitution for ether, to have been on the whole the most important and the culminating event in the history of Modern Anæsthesia. To this the labors and contributions of the Middle Ages, of Valverdi, Moore, Davy, Hickman, Samuel Jackson, Wood and Bache, Miller, Horace Wells, C. T. Jackson, and Morton, are cited as subsidiary. The announcement in this Journal in November, 1846, which electrified the world, records an occurrence which he views only as one stage in the gradual development of a discovery, of which the employment of chloroform was the grand and final event. In the endeavor to establish this position, prominence is given to incidents remote in history which had been long forgotten and would have remained so. The later but unproved suggestions of Davy, and the varying results of Horace Wells, are brought conspicuously into the foreground; the triumphant American discovery of 1846 is shaded quietly into the

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middle distance; while the most prominent place is reserved for chloroform, because it has, "if not entirely, yet nearly entirely, superseded the use of sulphuric ether."

But in following out this train of thought may it not well be asked, who will have contributed the most important part to the discovery of anæsthesia, when chloroform shall have been superseded by some less dangerous agent?—an occurrence which will, in this view, again be the great and crowning feature of the discovery. Plainly, this line of argument is not tenable, leading, as it does, to the conclusion that the great discovery of anæsthesia has not even yet been made, and in fact, that it never will be; but that it consists only in the successive substitution of each last and supposed better anæsthetic for a previous one.

The fallacy of this logic grows out of a misapprehension of the nature of the discovery in question, the precise character of which should be borne steadily in mind in testing any claim, whether in the past or future, to have made it. Its essential points should characterize every perfect remedial agent. Ether was the first anæsthetic proved to be *inevitable* as to the individual; *complete* in its effect; and *safe*. The same test may be applied to vaccination, for example. Inoculation by smallpox, although protective, had proved to be dangerous. But the discovery of Jenner, while practically *inevitable* as to the individual, and *complete* as a protection, was *safe*. Jenner was a discoverer; and his claim is invalidated neither by any previous mode of vaccination, nor will it be by any future one. So the discovery of modern anæsthesia is invalidated neither by the previous use of opium, alcohol, and nitrous oxide, nor by the subsequent use of chloroform.

Nitrous-oxyde in the hands of Horace Wells sometimes succeeded, but it also failed; as in his final experiment in Boston. The reason of his failures has never been told, but it was this. He used too small a volume of gas, and its virtue was soon exhausted. He employed a common gas-bag, instead of the large reservoir now successfully in use, so capacious that the inspired and effete gas may be exhaled as waste. In consequence

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of this error in his method, as inconsiderable as those of many other inventors who have, like him, narrowly missed great results, his anesthesia was uncertain, and could not be relied on to occur when it was wanted. Its failure became notorious, and Wells actually abandoned his experiments for nearly a year. Then, indeed, when the complete success of ether showed the disheartened experimenter how nearly he had attained to a great discovery, and by how little he had missed it, his attention was again aroused, and he engaged in new experiments; but it was now too late; the discovery had been made.

Modern dental anesthesia by nitrous oxide must not be confounded with the uncertain process of Horace Wells. The modern method by the large gasometer is more successful, but this was not the method employed by him. His gas-bag was liable to be inadequate, asphyxiating, uncertain. It was liable to fail.

If etherization had not been discovered, what, at this moment, would the nitrous-oxide gas-bag anesthesia of Horace Wells be practically worth to patient or to surgeon?

Horace Wells was not the discoverer of modern anesthesia, *inevitable, complete, and safe*,—"a triple discovery," involving three conditions—a notable failure to fulfil one or the other of which, as had happened in all previous experiments, would render it of little value. These three conditions were first fulfilled with ether. The discovery of modern anesthesia was made with ether. No previous anesthetic had accomplished such results. No subsequent anesthetic has effected more.*

Those who remember how the civilized world at once exulted in the great news from Boston, and how for months and even years the question of the discovery of modern anesthesia was supposed to lie exclusively and indisputably between Morton and Jackson, its two rival and contemporaneous claimants in that city, will examine closely any tardy pretensions based upon a previous imperfect discovery like that of Horace Wells, or upon any past or future modifications or alleged improvements, by chloroform or other agent, of the original, and first wholly successful process of anesthesia.

HENRY J. BIGELOW.

* Among the extraordinary and anomalous doings which signalized the late meeting of the "American Medical Association" was a resolution put and carried just before separating, attempting to settle by the snap judgment of a kind of caucus vote, a question of discovery in science which for years tasked the intelligence of scientific men in Europe and this country. This hasty vote finds itself associated with proceedings which the Association has left in *black and white* on its record, and which are not calculated to recommend it to public confidence.

HISTORY OF MODERN ANÆSTHETICS.* A SECOND LETTER TO DR. JACOB BIGELOW.

By SIR J. Y. SIMPSON, Bart.

MY DEAR SIR,—A few months ago I saw in an American general newspaper, the gratuitous attack upon me which you had published in the "Boston Medical Journal," but of which you had forgotten to send me either an intimation or a copy—doubtless from accident, and not from intentional discourtesy. Towards the beginning of the present year, I sent, in reply to your groundless accusation, an answer in the form of a letter to yourself; and subsequently I received from you a written note, in which you stated you were "not disposed to pursue the subject further." In consequence, I dismissed the matter entirely from my mind; and I deeply regret, both for your own sake and for the peace and character of our honorable profession, that you have not adhered to your resolution. For I have just received a slip of printed statement, unaccompanied by one word of writing, but drawn up in the form of another letter from you to me, in which you continue the subject in terms perhaps still more bitter and personal than before. On first perusing it, my impression was that it was too querulous in tone and temper to deserve an answer. I then thought of sending back a reply to you, stating, simply and briefly, that the new imputations in it were, one and all of them, without a shadow of foundation in fact, and even more worthless than those in your first. But, on re-perusing it, it struck me that you were considering yourself a representative and champion of the Boston School of Medicine, and that it might be well, once for all, to answer you as such even more fully and perfectly than I had done; and thus state, in my opinion, the great things which the Boston School had done—and had not done—in the cause of anesthesia; and how mistakes and errors

* The death of Sir James Y. Simpson renders it eminently proper that this paper should appear in the Journal, without the delay we had contemplated interposing in order to give time for some one of the publications which have noticed the controversy to copy the second letter of Dr. Jacob Bigelow, to which this is a reply. The discussion is now completed in this Journal, the columns of which are the only place where it has as yet appeared entire. The senior Dr. Bigelow published his second letter as his "final" communication on the subject; and Heaven's solemn fiat has placed the closing seal on this the rejoinder of the late lamented Professor Simpson.

The present communication is taken *verbatim* from a pamphlet forwarded from Edinburgh. The pamphlet was sent to Dr. Jacob Bigelow, to whom it is inscribed in Dr. Simpson's own handwriting—one of the last autographs, perhaps, ever penned by the celebrated Professor.—[Ed. Boston Med. and Surg. Journal.]

might possibly have originated on the subject between your city and other places which I trusted could be fully removed. Hence pardon me addressing to you the following observations :—

I.—TENDENCY TO CONFUSION FROM THE DISCOVERY OF CHLOROFORM RAPIDLY FOLLOWING THAT OF SULPHURIC ETHER.

From some communications which I have lately received from America, I find that your observations have stirred up there in some minds, the idea that I have held up the introduction of chloroform as an anæsthetic in Edinburgh to be antecedent, in point of time, to the introduction of sulphuric ether in Boston. I feel sure that you and I will mutually agree that never anything so wild or extravagant was hinted or suggested by either of us. The first case of anæsthetic operation under sulphuric ether occurred at Boston on the 30th September, 1846. The first case of an anæsthetic operation under chloroform occurred at Edinburgh on the 15th November, 1847. During the intervening thirteen months I had worked much with sulphuric ether in midwifery, etc.; and some of our surgeons, here and elsewhere, had used it more or less extensively; but it was not by any means adopted by all.

At the same time, you must allow me to remark that the ideas on the subject in your own mind, which have excited you to write, have, it appears to me, become chiefly bewildered and confused in consequence of one thing; namely, of the rapidity with which chloroform thus followed as an anæsthetic after the discovery of sulphuric ether; and in consequence also of the relative practical adaptability and superiority of the former in many respects, leading speedily to its general substitution in Europe, Asia, Australia, etc., for the latter.

In the "Dispensatory of the United States of America," Drs. Wood and Bache, when speaking of the use of sulphuric ether for inhalation in medicine, observe :—"Many years ago (1796, etc.) its use in this way was proposed by Drs. Beddoes, Pearson and Thornton, in England, as a remedy in certain diseases of the lungs. As early as 1805, Dr. Warren, of Boston, employed ethereal inhalation to relieve the distress attending the last stage of pulmonary inflammation. About the year 1812, in Philadelphia, at a time when nitrous oxide was the subject of popular lectures, the vapor of ether was frequently breathed from a bladder for experiment or diversion, and its effects in producing a transient intoxication

analogous to that caused by the nitrous oxide were observed." Now, if in Boston in 1805, or in Philadelphia in 1812, the inhalation of sulphuric ether had been tried to a sufficient depth for its anæsthetic effects to be discovered in dentistry and surgery, while the superior anæsthetic powers and higher practical properties of chloroform in midwifery as well as in surgery remained undetected till 1848—then all this storm of mist and obscurity, which has been attempted within the last few months to be stirred up on the matter, would have been an entire failure, or indeed an entire impossibility. For while the glory of first discovering the induction of surgical anæsthesia by the vapor of sulphuric ether would have been, as it undoubtedly is, American in its birth-place and origin, a Lord Provost of Edinburgh in 1869—or forty or fifty years afterwards—knowing and looking to the fact that chloroform in Scotland and in other parts of Europe, etc., had for the previous twenty years, if not entirely, yet nearly entirely, superseded the use of sulphuric ether, and by its general adoption diffused greatly and everywhere the practice of anæsthesia—might surely, without vindictive challenges and recrimination on your part, have ventured to speak of "the discovery and application of chloroform to the assuagement of human suffering," as "the greatest of all discoveries in modern times in connection with medicine."*

An illustration, however, may show my meaning better than an abstract statement. We have now at present in practice various means of abolishing the pain attendant upon surgical operations, as nitrous oxide gas, sulphuric ether, chloroform, etc.; and the olden surgeons had others. We have various means also of arresting the hemorrhage attendant upon these operations, as cauterization, torsion, deligation, acupressure, etc. these hemostatic means all arrest hemorrhage by closing up, in one way or other, the open mouths of the cut vessels. They get at one and the same end by three or four different means; but because these means have been suggested at three or four different and distinct times, anyone displacing the former does not of necessity require to be apologized for and denounced, as you seem rather to think ought to be the fact in the case of anæsthetics. Or take another illustration: The greatest thought ever perhaps broached in practical medicine, was the suggestion in relation to small-pox—and to probably other fatal diseases

* See the report of the Lord Provost's speech as given in the "Scotsman" of 27th October, 1869.

destined to occur only once in life—that their severity and fatality might be averted, if, instead of the contagious poison producing them being allowed to enter in limitless quantities into the body by respiration, it could be inserted in very small and definite quantities, by inoculation through the skin. Hence small-pox inoculation, and the wonderful protection obtained by it against the fatality of small-pox—an idea brought from Asia and Turkey, and acted on in England in the beginning of the last century. Ere, however, the century was closed, a new variety of matter was proposed to be inoculated by Dr. Jenner, and proved infinitely a greater success. The material used by the old Asiatic and Turkish inoculators was small-pox matter taken directly from pustules on the bodies of human beings who were infected with small-pox. The material used by Jenner was small-pox matter taken from the pustules produced on the udders and nipples of cows who were infected with small-pox poison. That vaccination was thus a modification of small-pox inoculation has never, however, been allowed to detract one iota, I believe, from the merit of the great pathological and practical revolution produced by Dr. Jenner. And the two discoveries—or two prophylactics against small-pox—the Asiatic and English, variolous and vaccine inoculation, have never clashed and been entangled together; for they were in our own country upwards of half a century or more separate from each other in the date of their introduction and discovery. Neither, I think, would the relative merits of the two anesthetics, the American and the English, sulphuric ether and chloroform, have been commixed in the manner in which they have been confused by you and others, had their discoveries been separated by upwards of half a century also.

II.—EARLIEST ANÆSTHETIC OPERATIONS IN AMERICA, AND THEIR CONNECTION WITH HARTFORD AND BOSTON.

From ancient times anesthesia in surgery has been attempted by various agents or anesthetics; but till latterly with very uncertain or equivocal effects. At the present time three kinds of anesthetics are principally and specially used in practice, namely:—

1. *Nitrous oxide gas*, now, I believe, employed extensively in dental surgery, etc.,* since it was reintroduced a few years ago

by Dr. Evans, of Paris; but originally suggested by Sir Humphrey Davy, in 1800, and practically and successfully employed by Dr. Horace Wells, in Hartford, in 1844.

2. *Sulphuric ether*, first used by Dr. Morton, at Boston, in 1846.

3. *Chloroform*, first employed in Edinburgh, in 1847.

There have been latterly used, also, from time to time, various minor anæsthetic agents, but none of them, I believe, to any great practical extent; though in all likelihood some will yet be discovered of types superior to any we as yet know. In my former letter to you, and on different other occasions, I have with other writers, shown that the ancient surgeons—medieval, Roman and Greek—were long employed in the search after surgical anesthetics, and so far succeeded, by making their patients inhale the fumes of narcotic vegetable extracts, drink solutions of them, etc. etc. Apparently afraid that the history and uses of these olden surgical anesthetics would detract from the merit of the Medical School of Boston, in the discovery of the anæsthetic properties of sulphuric ether, you bitterly denounce in your letter to me the study and consideration of them. Rest assured that no wishes or declamations, either on your part or mine, will wash out or obliterate that or any other point of the past history of surgery. "I did not desire," you exclaim, "to provoke this mediæval history." But was not your sole cause of complaint against me, this—that in speaking to the Town Council of Edinburgh one or two sentences regarding chloroform, I omitted—most erroneously in your opinion—to refer to, or speak of, the past history of anesthetics, say for a quarter or half a century backward? "Your prolix mediæval history," you again querulously complain, "is simply irrelevant, and its application illogical." It is in no degree illogical; but I believe that it would have been quite irrelevant if brought before the Town Council of my native city. My letter to you, as you further again bitterly observe, is "occupied with a cloud of antiquarian dust, of which the only apparent result is to obscure the truth and create a confusion in the mind of the readers, in the midst of which chloroform may be advantageously introduced." Surely, my dear sir, this undignified and calumnious sentence is unworthy alike of the heart and of the pen of Dr. Jacob Bigelow, and requires no answer from me.

But, dismissing the history of the olden forms of anesthetics, let me direct your at-

* See, for example, papers in the last numbers of the London "Lancet" by Mr. Fox, on the use of Nitrous Oxide as an Anæsthetic in Surgery.

tention for a moment to an episode in their more modern history connected with Boston and its medical school. You properly claim for yourselves true and vast merit from the discovery and application of sulphuric ether in dentistry and surgery. Indeed, you almost seem to me to insinuate in your letter that the medical world should have been ever afterwards contented to use sulphuric ether, and it alone. For you now argue and hold that sulphuric ether (see your last letter) formed a "*discovery of wonderful perfection at its very outset*." I think, however, Dr. Channing (pp. 322 and 337) alludes to you yourself using chloroform in some midwifery cases; and early in the practice of etherization in midwifery, I found that no busy obstetric practitioner could extensively employ sulphuric ether without inevitably carrying about with him, and upon his clothes, an odour so disagreeable to many other patients and other houses, as to make his presence there ought but desirable. Other Boston surgeons have tried, at least, other anæsthetics besides sulphuric ether, as if they did not look upon it in the way of "perfection," as you do. I have read of your accomplished son, Dr. Henry Bigelow, excising the mamma after he had placed the patient under the anæsthetic influence of nitrous oxide gas (*Official Documents*, p. 323). In your two late articles you have carefully eschewed all reference to this last special anæsthetic, nitrous oxide gas, in despite of its being now largely and successfully employed in Paris, London, and elsewhere, in tooth-extraction. I wish, on the contrary, to recall your attention particularly to it. For let me here again put you in mind that the first anæsthetic operation under sulphuric ether at Boston occurred on the 20th of September, 1846, when Dr. Morton drew a tooth from the head of Eben Frost, who had been previously placed under the influence of the anæsthetic vapor. Nearly two years previously, however, on the 11th of December, 1844, the same anæsthetic operation was as successfully performed at Hartford, the anæsthetic inhaled being not sulphuric ether, but nitrous oxide gas, and the patient being Dr. Wells himself,* to whose mind

* The account which Dr. Riggs has given, in his official examination in 1852, of this first anæsthetic operation in America, is sufficiently graphic. Messrs. Cooley, Wells, Colton, etc., were present. Dr. Riggs says:—"A few minutes after I went in, and, after conversation, Dr. Wells took a seat in the operating chair. I examined the tooth to be extracted with a glass as I usually do; Wells took a bag of gas from Mr. Colton, and sat with it in his lap, and I stood by his side; Wells then breathed the gas until he was much affected by it; his head chopped back; I put my hand to his chin; he opened his mouth and I extracted the tooth; his mouth still remained open some time; I held up the tooth in the in-

the idea had suggested itself on the night previously, that a person under a deep dose of nitrous oxide might not feel, when in that state, the pain of tooth-drawing and other operations, because he had seen Mr., now Colonel, Cooley wound his limbs severely against the benches without feeling any suffering from these injuries.*

A short and adequate experience of a dozen or more cases soon satisfied Dr. Horace Wells and others that teeth could in this way be extracted without pain,† however much trouble there might be in preparing and applying the gas with the imperfect means then in existence. His affidavits of its success (see foot-note) are unchallengeable. His friend Dr. Riggs, drew six teeth from one patient, at one sitting, without any suffering whatever. During this time, also, he seems to have discovered the great point which we now know to be so essential in the successful exhibition of nitrous oxide—namely, that it should be breathed as pure as possible, and without any mixture of atmospheric air.‡

strument, that the others might see it; they, standing partially behind the screen, were looking on. Dr. Wells soon recovered from the influence of the gas, so as to know what he was about, discharged the blood from his mouth, swung his hand, and said, 'a new era in tooth-pulling!' He said it did not hurt him at all. We were all much elated, and conversed about it for an hour after." (See "Appendix, Dr. Colton's Statements," p. 95.)

* This occurrence took place at the public exhibition of, and lecture on, laughing gas by Mr. Colton. The advertisement for Mr. Colton's lecture, published in the *Daily Times* of December 10, 1844, has been re-published in the *Daily Journal* for February of the present year. "The entertainment," says the advertisement, "is scientific to those who make it scientific." For a full account of the effects produced by the gas upon some of the most distinguished men in Europe, Mr. Colton refers to "Hooper's Medical Dictionary," where an abstract of the experiments of Sir Humphrey Davy is given.

† In his pamphlet and elsewhere, Dr. Wells brings forward sworn affidavits, from different patients, of the anæsthetic effects of nitrous oxide gas. Thus, for example, Mr. Burleigh states that after having had an opportunity of witnessing its effects on several persons, he himself breathed it, and he adds:—"Two curious teeth were extracted from my lower jaw without the least suffering on my part, though ordinarily, owing to the firmness with which my teeth are fixed in my jaw, I suffer extreme pain from their extraction." "Dr. Wells," states Mr. Goodrich, "was most successful in extracting for me a large, firmly set bicuspid tooth, without the slightest sensation of pain. I also witnessed, soon after, a repetition of the same process by Dr. Wells upon several individuals, accompanied in every instance with perfect success," etc.

‡ See Dr. Morton's volume of "Official Documents," p. 29, etc. "The less atmospheric air is admitted into the lungs with any gas or vapor the better—the more satisfactory will be the result of the operation." Dr. Morton, unaware of the rules for breathing nitrous oxide, denounces this observation of Dr. Wells as "inconsistent with fact." "This agent"—nitrous oxide gas—"never," stoutly avers Dr. Morton, "was, nor can it ever be of any value" (*Official Volume*, p. 12). Dr. Morton's first chapter in this volume against nitrous oxide reads now, I fear, as only an exhibition of jealousy and ignorance; and Prof. Jackson's letter against Dr. Wells (see p. 472 of the same volume) is still more painful and inexcusable in its tone and character.

Elated with his discovery, he in a week or two proceeded to Boston, in order to lay it before the medical faculty there, and show its effects; and first made it known there—according to his own account—to Drs. Warren, Heyward, Jackson, and Morton, the last gentleman being a former pupil and partner of his own, and destined to be the future discoverer of anaesthesia by sulphuric ether.*

A case of amputation was about to be performed by Dr. Heyward in the Massachusetts Hospital, but was put off for some days. After Dr. Wells had addressed Dr. Warren's class on the subject, it was proposed that the anaesthetic should be tried in the case of a tooth-extraction. "Accordingly," writes Dr. Wells, "a large number of students, with several physicians, met to see an operation performed—one of their number to be a patient. Unfortunately," he continues, "for the experiment, the bag was withdrawn much too soon, and he was but partially under its influence when the tooth was extracted. He testified that he experienced some pain, but not so much as usually attends the operation." The audience pronounced it a humbug affair and an imposition, and Dr. Wells was hissed away, left Boston, and gave up, for a time, his profession in disgust and vexation. "He was laughed at," contemptuously writes Dr. Charles T. Jackson, "for his pretensions, and left Boston. No one ever believed in his story." ("Official Documents," p. 472.) According to the statements of Dr. Morton, his friend and former partner, who accompanied him, "the spectators laughed and hissed; the meeting broke up, and we were looked upon as having made ourselves very ridiculous." (See "Official Documents," p. 47.) In these experiments, Dr. Wells, as I have said, used the nitrous oxide gas, which in 1800 Sir Humphrey Davy had in England found capable in his own person of removing intense physical pain, and which he consequently suggested as "capable of destroying physical pain during surgical operations in which no great effusion of blood takes place." In your late letter to me, however, you maintain that "Sir Humphrey Davy," to quote your own extraordinary words, "must be exonerated from all practical knowledge of anaesthetic inhalation, otherwise he is chargeable with all the tortures of amputation and lithotomy which have taken place since he made the

discovery and concealed it." You have used, I know, the same mild and irrelevant argument against Dr. Jackson which you here use against Sir Humphrey Davy, forgetting that their profession was that of chemists and not of surgeons. Have you really any hope or expectation that, either in Boston or elsewhere, such a violent observation as I have just now quoted, will blot out and erase in some cabalistic way the remarkable fact that Sir Humphrey Davy, seventy years ago, relieved intense physical pain in his own person by breathing nitrous oxide gas, or that he suggested that it might be used as an anaesthetic in some surgical operations, and—published the suggestion?

But now mark what subsequently occurs. An American dentist works out to its practical results the suggestion published in England half a century before by Sir Humphrey Davy, and which you seem to wish to efface from anaesthetic records; and he travels a long distance to place the important result before the Medical School at Boston, and some surgeons of the Massachusetts Hospital. There is a slip in the single experiment allowed him. He is spurned and hooted away. In doing this the Medical School of Boston thus delays the whole subject of artificial surgical anaesthesia for a couple of years. Was not the Medical School of Boston then, in your violent language, "chargeable with the continuance of operative tortures," for that period, much more than Sir Humphrey Davy? Did not your school stamp out—and thus prevent for two years more—the "most beneficent discovery," to use again your own grandiloquent words, "which has blessed humanity since primeval days of paradise"?* I am using here not my language and logic, but yours.

It is perhaps here unnecessary to add that there is sufficient evidence that Drs. Wells, Marcy, and Goodrich debated the question together whether sulphuric ether would not be an agent preferable to nitrous oxide in these experiments. (See "Official Documents," pp. 26, 27 and 43. Appendix, pp. 87, 111, 114.) But Dr.

* See the Appendix to Dr. Morton's volume of "Official Documents," pp. 11, 14, 15, etc., and Dr. Wells' pamphlet about the history of the discovery of the application of nitrous oxide gas, p. 6, etc.

* Of course unaware of the comparative perfection to which Dr. Horace Wells' method of inducing brief surgical anaesthesia might yet be brought, the select committee of the House of Representatives of the United States in 1852 report so far against the material utility and success of Dr. Horace Wells' claims; but they add "he had the merit to carry out practically the idea suggested by Sir Humphrey Davy of rendering by the influence of nitrous oxide gas a patient insensible to pain in surgical operations." "He also," they add, "contributed something in directing the mind of Dr. Morton to the subject." See "Official Documents," pp. 13 & 16.

Marcy thought nitrous oxide the safer and pleasanter of the two, and also more easy to inhale.* In the essay in which your son first describes the inhalation of sulphuric ether in surgery, he points out its similarity to nitrous oxide.† "Ether inhaled in vapor," he says, "is well known to produce symptoms similar to those produced by the nitrous oxide." (See Paper read before Boston Society of Medical Improvement, 3d November, 1846.) Dr. Horace Wells had the idea suggested to his mind one day, the 10th of December, 1844, that the inhalation of nitrous oxide gas would prove an anæsthetic in tooth drawing, and he had it proved and verified the next day on his own person. But the step from using nitrous oxide gas to using sulphuric ether vapour was slower and yet greater and more momentous in its results. Dr. Morton, who, as his friend and old partner, assisted at Dr. Wells' experiment at Boston, no doubt knew all the results obtained at Hartford, where he twice visited Dr. Wells after 1844; and he evidently, betimes, got the idea or speculation into his head that sulphuric ether might prove successful. From a different line of observation, Professor Charles Jackson was led to the entertainment of the same speculation. Assisted, apparently, by one or two hints from Dr. Jackson regarding the pure quality of the ether, or, possibly, its easiest mode of exhibition, Dr. Morton verified the speculation on the 30th September, 1846, by operating on Eben Frost, and fixed that date as an era in science.

III.—ETHERIZATION, OR ANÆSTHESIA, IN MIDWIFERY.

The first operations under anæsthetic inhalations in America occurred therefore, as we have seen in the last section, at Hartford, and not in Boston. In Hartford it was effected by an anæsthetic gas, long before suggested by Sir Humphrey Davy. But at

Boston you at first retarded, for a time, the whole process of anæsthesia, by rejecting the evidence of it offered you by Dr. Horace Wells. For, to quote the words of Dr. Riggs, "there (in your school) he met with a reception so cold that, after a single imperfect trial of the gas, amidst the sneers of those around him, he left Boston in disgust, and sick at heart at the unfair disposition manifested towards him." Besides erring in this direction you must permit me to add that in my opinion some of the Boston physicians have also erred in quite an opposite direction. For, after once making the discovery of the superinduction of anæsthesia by sulphuric ether, you seem inclined to hold that the subsequent merit of everything connected with etherization belongs to Boston, and to Boston exclusively.

The object of your first article on the present subject was to show that, because when I received the burghership of Edinburgh, I omitted to allude to the previous use of anæsthetics at Hartford and Boston, I was therefore deliberately guilty of trying to appropriate what belonged to my American brethren. In my reply to you, whilst showing that I was entirely guiltless of any such appropriation in thought or in word, I pointed out that, strangely enough, you yourself were in the same article openly and flagrantly guilty of the unprofessional misdeed of which you accused me; for, in claiming, as you there did, for Boston the introduction of anæsthetic inhalations, in obstetrical practice, you attempted to annex and appropriate to your country what most indubitably belonged to mine.

In your last letter you begrudgingly state to me, "I do not now question that you were the first to use ether in labor;" and then you superciliously add, "but who first introduced anæsthetics in obstetrical practice is a matter of limited importance." According to the testimony, however, of our late mutual friend, Sir John Forbes, the application of anæsthetics to midwifery involved many more difficult and delicate problems than its mere application to dentistry and surgery. New rules required to be established for its use—the time during which it could be given ascertained—its effects upon the action of the uterus, upon the state of the child, and upon the parturient and puerperal state of the mother, etc., all required to be accurately studied. Would it increase or diminish the tendency to convulsions, hemorrhage, and various other complications? Moral and religious

* It is unnecessary to enter here into the discussion whether Dr. Marcy, of Hartford, in 1844 or 1845, removed without pain a tumor about the size of a walnut from the head of a young man who was at the time anæsthetized by the vapor of sulphuric ether (see volume of *Official Documents*, p. 27, and Appendix, p. 132, &c.). If so, he forestalled the use of sulphuric ether at Boston as an anæsthetic in surgical operations. But his experiment was so far sterile as the employment of sulphuric ether in surgery did not spread from that point.

† In the volume of "*Official Documents*," p. 372, there is one case entered, suggestive of the applicability of artificial anæsthesia from breathing sulphuric ether, quite similar to Colonel Cooley's experience with regard to nitrous oxide. "A young gentleman, ten years since, who is now a physician, was inhaling ether for amusement, as was the custom at Harvard College. He took enough to make him so insensible that he fell upon the floor. In falling he cut his head badly. On recovering he was unaware that he had injured himself at all."

questions also came to be involved, and required to be duly answered. The Boston patent for the use of sulphuric ether, taken out by Drs. Morton and Jackson, did not, I believe, include its employment in midwifery; and your son, Dr. Henry Bigelow, weeks after its use was first begun, deemed it only "adapted to operations which were brief in their duration, whatever be their severity. Of these the two most striking, perhaps, are amputations and the extraction of teeth."* This was published in November. When I saw Mr. Liston in London, during the following Christmas holidays, he expressed to me the opinion that the new anæsthetic would be of special use to him—who was so swift an operator—as he thought, like Dr. Bigelow, it could only be used for a brief time. I went back, however, from this London visit to Edinburgh, bent on testing its applicability to midwifery, and found that it could be safely used for hours, etc.

But is its application to midwifery of "limited importance," as now in the fervour of disputation you seem anxious to affirm? Your words in your first article regarding the commencement of anæsthetics in Boston are these:—That anæsthetic inhalation "began in this country, and was first used in the extraction of teeth, and afterwards (2) in capital operations in the Massachusetts General Hospital; and (3) in obstetrical practice." You adduce thus three kinds of practice in which it was used in Boston—namely, (1) dentistry; (2) surgery; and (3) midwifery. You have omitted medicine, probably because you well knew the employment of the inhalation of sulphuric ether had been introduced (as we have seen in a previous part of this letter) into medical practice by Dr. Pearson half a century before. Holding as you now affect to declare, that the use of anæsthetics in obstetrical practice is a matter of limited importance, upon what ground, may I venture to ask, did you, only two or three months ago, in your first attack, adduce its application to midwifery as one of its three chief applications? Further, among these three chief applications, may I ask you, in all honor and honesty, is its use not—even in your opinion—a matter of infinitely less importance in dentistry than in midwifery? Of the relative value of any new practice, such as artificial anæsthesia, we are bound to judge by its utility, not in any specializ-

ed practice, as that of a surgical hospital, but in the general practice of the general practitioner. Now most general practitioners have twenty or thirty cases at least of labor in which they may employ anæsthetics for every one case of surgery in which its use could be adopted by them; surgical cases being rare, and obstetrical cases common in general practice. You practice, and have, I believe, all along practised chiefly as a physician, and are hence, perhaps, no good judge in the matter; but let me extract for you from the volume of "Official Documents" published by your townsman, Dr. Morton, the opinions of one or two general practitioners on the subject. "It is," says Dr. Appleton, "in obstetric practice that I have most frequently used these most valuable agents, and I regard their usefulness in this relation as among the most valuable results of their discovery." "In private practice," writes Dr. Ellis, "its most happy and beneficial effect is in obstetrics * * * its benefit, if in no other, in this class of cases alone, is the greatest discovery in any age of the world for the relief of suffering humanity." (See vol. of "Official Statements," pp. 180, 182.)

You profess to deem it a "matter of limited importance" who first introduced anæsthetics into midwifery. Perhaps it is so. But you will excuse me adding that at the time of the first application of anæsthesia to obstetrical practice—amidst the hundreds and thousands of practitioners who were then engaged in midwifery in the Old and the New World—I happened to be the first who took up the subject and worked out most of the problems connected with it. Any one of these hundreds and thousands might certainly have done the same, but did not do it.

Let me here add that I would not have dwelt thus long upon the application of anæsthetics to midwifery, did I not feel compelled to add that other of your medical townsmen have seemed quietly on this head to have tried like you also to appropriate to Boston what belongs to Edinburgh. Thus Dr. A. Gould, in his official deposition in 1852, speaks of "the first administration of sulphuric ether in obstetrics by Dr. N. C. Keep,"* of Boston, as "a similar

* See the paper which he read, five or six weeks after the introduction of sulphuric ether, before the Boston Society of Medical Improvement, as cited in Brooks' Essay on the Vapour of Sulphuric Ether, page 30.

* Dr. Keep's case happens to be described by Dr. Channing in such words as to leave it equivocal whether or not it was the first obstetric instance in which sulphuric ether was given in Boston or America only, or in the world. Dr. Channing's account of it is as follows:—"The anæsthetic power of sulphuric ether, when inhaled, was first used in childbirth in this city, in a case of natural labor, on the 7th April, 1847, by Dr. N. C. Keep, and was successful." ("Etherization in Childbirth," by Channing, p. 26.)

step in the discovery" as anæsthesia in dentistry and surgery. In my former letter, however, to you, I showed you that Dr. Keep's case, here alluded to by Dr. Gould, did not occur in Boston till weeks and months after the practice of anæsthesia in obstetrics had been fully studied and established in Edinburgh. Besides, I find now, on looking over the large volume published on Etherization in Midwifery, by my friend, and your townsman, Dr. Channing, that—avoiding all allusion to the midwifery cases reported, and the papers published upon etherization in midwifery, in Edinburgh, weeks previously to the occurrence of Dr. Keep's case in Boston—he speaks also of Dr. Keep's as if it were the first instance in which either had been employed in obstetrics. But this, perhaps, is merely an omission, as in a holograph inscription of his volume to me, Dr. Channing duly acknowledges that I was the first to introduce anæsthetics into obstetrical practice; and in the dedication of his work, he speaks, let me add, of midwifery as being a department which has derived "special and vast benefit" from the application of anæsthetics.

According to your reasoning (?) in the case of Sir Humphrey Davy, that great philosopher "must be exonerated from all practical knowledge of anæsthetic inhalation; otherwise he is chargeable with all the tortures of amputation and lithotomy" which have taken place from his time till the end of 1846. According to the same ratiocination, were not you and the other accoucheurs of Boston chargeable with all the tortures of childbirth and parturition borne by the female population of that city for months onwards after October, 1846; or, till the knowledge of the mode of relieving them from these tortures was sent out from Edinburgh—seeing the use of ether in labor was a matter of "limited importance," and could or should have been discovered months previously in your city, and not in Europe?

4.—ALLEGED NEGLECT OF AMERICAN CLAIMS IN WRITING A SKETCH OF THE HISTORY OF ANÆSTHETICS.

The chief or only subject of your attack upon me in your first article was the frivolous allegation that, when last year I received the honorary burghess-ship of Edinburgh, and when I had to speak on various and different topics, I omitted to do justice to your city and to America, by omitting to talk of the discovery of sulphuric ether as an anæsthetic, when I was called upon to answer an

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observation or two of the Lord Provost's on chloroform.*

In your last letter, following out the same jealous strain of complaint, you argue that, besides the alleged omission in an *impromptu* speech, I was guilty, in an article which I had calmly written upon chloroform in the "Encyclopedia Britannica," of not doing "justice to the great American discovery." The article in question was printed in a volume of the "Encyclopedia" for 1854, and has been republished in the second volume of my works, collected and edited by Drs. Priestley and Storrer. In that article, after defining chloroform and stating its composition, modes of preparation, physical, chemical, and physiological properties, I have described at length the various therapeutic uses to which it, and consequently any other similar anæsthetic, could be applied in surgery, in midwifery, in medicine, and in medical jurisprudence; and ultimately I have occupied the last three columns of the article by a brief historical sketch of the various anæsthetic agents which had been used previously to the introduction of chloroform. And this historical sketch is the special object of your new attack.

In giving in my lectures and otherwise, a history of anæsthetics, I have sometimes traced them from the earliest known periods downwards to the present day; but

* Lest there be any mistake regarding the grounds or supposed grounds of all the war which you have tried to stir up against me, let me here cite in full the Lord Provost's remarks on chloroform, and my reply to them. The Lord Provost, let me state, was one of the most intelligent and intellectual men of the age, William Chambers, Esq., the well known author and publisher. His address to me in presenting the burghess ticket was spoken extempore, and I find that his words on chloroform are somewhat differently reported in our three morning journals. The version most favorable for you is the one you select—the "Daily Review"—and is as follows: "I will not dwell on what you have accomplished in medical science. I will only allude to your discovery—the greatest of all discoveries in modern times—of the application of chloroform in the assuagement of all human suffering. That was a great gift to mankind at large, and it well befits us, the Corporation of Edinburgh, to mark our sense of the great act of beneficence on your part by this small compliment." His Lordship subsequently alluded to my writings on Acupuncture, Hospitalism, etc., etc.

With regard to the observations on chloroform, I replied in the two following sentences: "You advert to the discovery of the anæsthetic effects of chloroform. Perhaps you will allow me to state that there are various manufactories of it in Great Britain, and that a single one of these, located in Edinburgh, makes as many as eight thousand doses a day, or between two million and three million of doses every year—evidence to what a great extent the practice is now carried, of wrapping men, women, and children in a painless sleep during some of the most trying moments and hours of human existence; and especially when our frail brotherman is laid upon the operating table, and subjected to the tortures of the surgeon's knives and scalpels, his saws and his canteries." (See Journal of the Gynaecological Society of Boston, December, 1869, p. 377.)

more frequently I have followed the *inverse* order, because I have found it more instructive and interesting—namely, that of tracing them gradually backwards from their most recent to their most ancient form. I have followed this last method in the said article in the "Encyclopædia Britannica," and have hence first mentioned chloroform as then the most recent anæsthetic in the two following lines: "The vapour of chloroform was first proposed by Dr. Simpson as an anæsthetic agent in 1847."

I then after these two lines, give about twenty lines to sulphuric ether, beginning thus: "For a year previous the vapor of sulphuric ether had been used to a considerable extent both in America and Europe, for the purpose of inducing insensibility to pain in surgical operations. It was first practically adopted for this purpose in 1846 by Dr. Morton, a dentist at Boston, in America. Subsequently Dr. Charles T. Jackson, of that city, claimed the right of having suggested to Dr. Morton sulphuric ether as an agent capable of producing insensibility to pain. But the power of producing by the vapor of sulphuric ether an insensibility exactly like that produced by the inhalation of nitrous oxide gas, had been long previously known," and so on through its history.* *Thirdly*, I allude to carbonic acid, as suggested by Dr. Hickman in 1828; *fourthly*, to nitrous oxide gas, as hinted at by Davy in 1800; *fifthly*, to compression of the nerves, as used by Dr. Moore in 1784; *sixthly*, to compression of the carotides, as suggested by Valverdi and others in the sixteenth century; *seventhly*, to the fumes and extracts of mandragora, Indian hemp, and other soporific drugs, as practised by mediæval and ancient Roman and Greek surgeons.

Now comes your strong and strange accusation or accusations. For first you hold, as far as I understand you, that the article was written for my "self-exaltation," or, to quote your own words, "in favor of the self-exaltation of the writer." Of any such object I know and feel myself to have been utterly

guiltless, either in this or any other of my writings. In the whole course of this long encyclopædic article upon chloroform, if my object had been "self-exaltation," I might, not unjustly, have connected my name with several of the original suggestions and practices stated in the article; but I have mentioned my name only once, and that in the brief historical sentence already quoted, and (I appeal to yourself or any honorable man) such mention was utterly unavoidable for the sake of simple historical accuracy, all such history inevitably involving an enumeration of names.

But then comes your other accusation, that, in enumerating the different methods of producing anæsthesia, I have adduced chloroform *first*, sulphuric ether *second*, carbonic acid *third*, nitrous oxide *fourth*, etc., to "cover"—to use your own reprehensible words—"this inversion of historical order in favor of the self-exaltation of the writer, * * * who availed himself of this opportunity principally to place himself conspicuously in the foreground."

Believe me, I feel difficulty in commenting upon these criticisms of yours; they are essentially so groundless and absurd; and I know them in my own heart to be so utterly untrue. If an American or English school boy were asked to give a *retrograde* chronological list of the Presidents of the United States, or the Sovereigns of England, from the present time to the commencement of this century, would he not begin with Gen. Grant and Queen Victoria? According to your logic, however, that would imply "self-exaltation" on the part of the pupil; and to avoid this, he ought to commence with the Presidents Johnson and Lincoln, and King William the Fourth. But would not such a strange historical obliquity and misstatement, if unhappily indulged in, bring down condign punishment and contempt on the disciple? And is there not occasionally truth in the saying that "sages sometimes do as foolish things as school-boys"?

If I had the same history to re-write today, I do not know that I could or would write it in any different terms, except by pointing out more distinctly Dr. Wells' claims, and also Dr. Jackson's. And pray in what terms would or could you advise me that it should have been written, or should be written now? Ought I to have broken out into some high-flown sentence or sentences regarding the history of the anæsthetic effects of sulphuric ether, when I spoke secondly of that anæsthetic? Would it not, let me ask you, have been more

* You underscore the expression used "to a considerable extent," probably with a view of indicating that that is doubtful; but such, I believe, was the fact here and elsewhere in the first year of etherization. In the "Edinburgh Medical Journal" for September, 1847, I find it stated by me (p. 153) that "during the last six months etherization has been used to a considerable extent in British surgery." The editor of the same journal, in his December number—chloroform having been introduced in the interval—observes, "In Edinburgh it (chloroform) has been used publicly by all the surgeons of the Royal Infirmary [they had not all used ether], and its employment in midwifery practice is almost universal. Ether," he adds, "has almost been abandoned." (P. 456.)

natural—for me at least—to have done so in speaking of the history of the anæsthetic effects of chloroform, instead of dismissing it in the two brief lines I have already quoted; seeing, especially, that I knew that it was employed in hundreds or even thousands of instances for every five or ten in which sulphuric ether was used?

I have, I find, printed another short epitome of the history of anæsthetics; but I am not sure that it will please you better. In a paper on "Etherization in Surgery," published in September, 1847—the first of a series on this subject—I take occasion to speak of Dr. Morton, of Boston, as "the gentleman to whom I believe the profession and mankind are really and truly indebted for first reducing into practice the production of insensibility by ether-inhalation, with the object of annihilating pain in surgical operations,"—language stronger, I think, than I have seen in most American essays on the subject. And at the meeting of the Edinburgh Medico-Chirurgical Society, on November 10th of the same year, I laid before them a paper termed "Historical Researches regarding the Superinduction of Insensibility to Pain in Surgical Operations; and Announcement of a new Anæsthetic Agent." This communication on the history of anæsthetics, like that in the "Encyclopædia Britannica," took up the subject in retrograde chronological order, beginning with sulphuric ether first, as chloroform was not known when it was drawn up a week or two previously. In the abstract of this historical paper, which appeared in the "Edinburgh Journal" (it was never published entire), I find that I traced out, at much length, the chemical and therapeutic history of sulphuric ether, and added as follows: "Its power of producing, by inhalation, effects like intoxication, or like the influence of nitrous oxide gas, he (Dr. Simpson) showed to have been stated by various American authors, as by Professor Samuel Jackson (1833), Wood and Bache (1834), Miller (1846), before it was so fortunately adopted by Dr. Morton as an anæsthetic agent. His belief was, that Professor Charles Jackson improperly claimed the merit pertaining to its recent happy application in surgery, etc. Perhaps the idea of relieving patients from the pains of surgery by some such means, or rather, the restoration of that idea in recent times (for it was an old one), belonged justly to Horace Wells." (See "Edinburgh Monthly Journal of Medi-

cal Science" for December, 1847, p. 453.)* From the abstract of this paper it appears that I went chronologically backwards, through various old anæsthetic vapors and measures, to the use of the fumes of Indian hemp in the time of Herodotus. I then took up the last or second part of the paper, and showed the Society the newly discovered anæsthetic, chloroform, and its effects.

At the time at which this paper was read, we had, with almost every mail from America, statements and counter-statements sent as to who was the rightful claimant for the discovery of artificial anæsthesia; and what was conceived to be true one month, was apt to be upset the next. In none of these statements have I, I think, done sufficient justice to the claims of Professor Charles T. Jackson, for I now believe he had more merit in the discovery than formerly I felt inclined to attribute to him, since I have latterly looked over the large volume of "Official Documents" on the matter, presented to "the Select Committee appointed by the Senate of the United States." He held the idea that sulphuric ether vapour might anæsthetize a patient for an operation though he had not reduced in any way that idea to practice; and at first seemed afraid of the possible results of Dr. Morton's experiments, while he avoided witnessing the results. (*Official Documents*, pp. 352 and 446.)

If we try to put into a summarised form the data† which we have been discussing regarding the introduction of anæsthesia in America and this country, it appears to me that we might correctly state the whole matter as follows:—

1. That on the 11th December, 1844, Dr.

* The epitome has been republished in a volume of mine on "Anæsthesia" (p. 190), printed at Philadelphia in 1849; but it is not republished in the collection of my writings edited by Drs. Priestley and Storrer. I have seen it repeatedly cited, at pretty full length, in American essays on anæsthetics—sometimes with, sometimes without, acknowledgment.

† You must kindly excuse me if some of the data are not strictly accurate in every point, as you know how difficult it is to make medical aphorisms quite correct; for example, in the inscription which you represent as cut upon the monument, lately erected at Boston, to anæsthetics, namely, "To commemorate the discovery that the inhaling [the inhalation] of ether causes insensibility to pain, first proved to the world at the Massachusetts General Hospital, in Boston, October A.D. 1846;" there are, it appears to me, two errors. First, ether and sulphuric ether are two terms not at all synonymous, and still you have inserted the former for the latter. Secondly, it is not strictly true that the effects of sulphuric ether were "first proved to the world in operations at the Massachusetts General Hospital." For to cite the more correct statement of Dr. Channing: "These operations were first performed in private practice, and immediately afterwards upon patients in the Massachusetts General Hospital." (Channing "On Etherization," 1848, p. 20.)

Wells had, at Hartford, by his own desire and suggestion, one of his upper molar teeth extracted without any pain, in consequence of his having deeply breathed nitrous oxide gas for the purpose, as suggested nearly half a century before by Sir Humphrey Davy.

2. That after having with others proved, in a limited series of cases, the anæsthetic powers of nitrous oxide gas, Dr. Wells proceeded to Boston to lay his discovery before the Medical School and Hospital there, but was unsuccessful in the single attempt which he made, in consequence of the gas-bag being removed too soon, and that he was hooted away by his audience, as if the whole matter were an imposition, and was totally discouraged.

3. That Dr. Wells' former pupil and partner, Dr. Morton, of Boston, was present with Dr. Wells when he made his experiments there.

4. That on the 30th September, 1846, Dr. Morton extracted a tooth without any pain, whilst the patient was breathing sulphuric ether, this fact and discovery of itself marking a new ERA in anæsthetics and in surgery.

5. That within a few weeks the vapor of sulphuric ether was tried in a number of instances of surgical operations in Boston,—Dr. Morton being generally the administrator;—and ether vapor was established as a successful anæsthetic in dentistry and surgery.

6. That in January, and the subsequent spring months of 1847, the application of sulphuric ether as an anæsthetic in midwifery was introduced, described in our medical journals, and fully established in Edinburgh, before any case with it was tried in Boston or America.

7. That on the 15th of November, 1847, the anæsthetic effects of chloroform were discovered in Edinburgh, and that it swiftly superseded in Scotland and elsewhere the use of sulphuric ether, and extended rapidly and greatly the practice of anæsthesia in surgery, midwifery, etc.

I am very sorry to have taken up so much of your time and my time with such a petty discussion as the present. It has extended to too great a length; but I am a sad invalid just now, and quite unable to write with the force and brevity required. With many of our profession in America I have the honor of being personally acquainted, and regard their friendship so very highly that I shall not regret this attempt—my last perhaps—at professional writing as altogether useless on my part, if

it tend to fix my name and memory duly in their love and esteem.

Yours, J. Y. SIMPSON.

Dr. JACOB BIGELOW.
Edinburgh, April, 1870.

Reports of Medical Societies.

NORFOLK DISTRICT MED. SOCIETY OF MASSACHUSETTS. REPORTED BY WM. H. CAMPBELL, M.D., OF ROXBURY.

THE Annual Meeting of the Norfolk District Medical Society was held at Hyde Park, on Wednesday, May 11, at 11 o'clock, A.M.

The President, Dr. Cotting, in the chair.

The Records of the last meeting were read by the Secretary, Dr. Jarvis, and accepted.

The Censors reported that they had admitted into the Massachusetts Medical Society, Dr. Arthur H. Nichols, of Roxbury.

The Treasurer made his annual Report, showing a flourishing state of the finances. Accepted.

Drs. Monroe, Salisbury and Green, were appointed a Committee to nominate officers for the year ensuing.

The President and Secretary declined re-nomination.

The Committee consisting of Drs. Abbott, Alden, Allen, Amory, Arnold, Bacon, Bass, and Blaisdell, appointed to open and continue a discussion at the next regular meeting in July, selected *Inflammation* for their subject. Accepted by the Society.

Voted to meet hereafter at Hyde Park unless otherwise ordered.

Dr. Amory, of Brookline, a Delegate from the Society to the American Medical Association at Washington, presented a Report of his attendance and experiences there; commenting on the undignified proceedings of that body, and on the extraordinary attempt of certain members of the Massachusetts Medical Society in their attempt to prevent the representation of that Society in the American Association; and finished by offering the following resolution:—

Resolved, That, at the next annual meeting of the Council of the State Society, the Councillors of the Norfolk District Medical Society be requested to take the action necessary to bring before the Council, violations of the principles of the organization of the Massachusetts Medical Society. Adopted.

At 1 o'clock, Dr. R. T. Edes, of Roxbury, delivered the Annual Address on "*Practical Medicine as an Exact Science*," of which the following is a short abstract:—

The uncertainty of medicine and the change of theories, are facts which must be admitted, but are paralleled in other branches of knowledge, especially some of those involving the most important human interests, as theology and political economy. But medical science has shared in the general advance of the last century, not only in pathology and diagnosis, but in precision of therapeutics, the gain being not only in better means of investigation, but in more accurate habits of thought.

One of the most important facts recently recognized is the self-limitation of many diseases.

Therapeutics, however, do not stop here. We have no right to draw an artificial line between nature and the agencies used by the physician, whether drugs or others, since we cannot take the patient out of the hands of nature; and our means are only natural forces which are under our control used against others which are less so.

Admitting the deficiencies of our art, there is yet great hope for the future, and though we may never discover a cure for every disease, yet we may arrive at a knowledge of that plan which in each case will give the patient the best treatment possible under the existing laws of nature.

To reach such a result, each practitioner, while making the best use of the wisdom of the present, must make his contribution of well observed facts for the future advancement of science.

Voted, That the thanks of the Society be given to Dr. Edes for his interesting and instructive Address.

On Report of the nominating Committee, now presented, the following officers were chosen:—

Dr. Christopher C. Holmes, of Milton, *President*; Dr. Edward Jarvis, of Dorchester, *Vice-President*; Dr. Charles E. Stedman, of Dorchester, *Secretary*; Dr. Eben P. Burgess, of Dedham, *Treasurer*; Dr. D. S. Fogg, of South Dedham, *Librarian*.

Councillors.—Dr. G. J. Arnold, of Roxbury; Dr. H. Bartlett, of Roxbury; Dr. B. E. Cotting, of Roxbury; Dr. B. Cushing, of Dorchester; Dr. G. Faulkner, of Jamaica Plain; Dr. W. C. B. Fifield, of Harrison Square; Dr. F. F. Forsaith, of Weymouth; Dr. J. G. S. Hitchcock, of Foxboro'; Dr. E. Jarvis, of Dorchester; Dr. A. LeB. Monroe, of Medway.

Censors.—Dr. J. S. Green, of Dorchester; Dr. J. Seaverns, of Roxbury; Dr. C. C. Tower, of So. Weymouth; Dr. C. E. Stedman, of Dorchester; Dr. J. Stedman, of Jamaica Plain.

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Commissioner of Trials.—Dr. S. Salisbury, Brookline.

Committee of Supervision.—Dr. S. E. Stone, of Walpole; Dr. W. S. Everett, Hyde Park.

After announcing the results of the balloting, the retiring President, Dr. Cotting, on leaving the chair, said: that

Having remained in office much longer than customary, he had felt it quite time to yield it up to other hands, and had therefore declined re-election. Though not unmindful of the honor of an unsought elevation to their highest office, he had been fully aware of the responsibilities attached to it—that it might even become a reproach to an incumbent did he not exert his best endeavors for the true advancement of the Society. In this view, he had labored—not, he hoped, without some useful results, through the effective co-operation of members. Jealous of its good name and desirous that the Society should stand well among its colleague Districts, he now felt, on looking back, that the members had in reality some cause for mutual congratulations. During these past five years, while the attendance at meetings has increased to nearly double the former average, more than forty papers have been given through the Society to the Boston Medical and Surgical Journal. Some of these were quite valuable, and have been considered, at home and abroad, worthy of reprint, or analysis. Among them might be mentioned that on "Intemperance and Mortality," by Dr. Jarvis; on "Opium Poisoning," by Dr. Monroe, with a novel and successful procedure for relief; on "Our Habits," by Dr. Salisbury; on "Collodion; with formula," by Dr. Maynard, who introduced it into surgical practice; on "Paper splints strapped with slips of iron," by Dr. Campbell—an invention of another member, Dr. Allen, which, for easy preparation for all parts of the body from head to toes, and for effectiveness, especially where curved or bent apparatus is required, needs only to be more known to become of frequent use, particularly in country practice; on the "Hydrostatic Atomizer," by Dr. Arnold; on "Intra-Uterine Scarification," with a new Instrument for the purpose, by Dr. Miller; on "Prolapse of the Cord," with successful cases, by Dr. C. E. Stedman; on "the Medical Botany of Norfolk County," by Dr. Noyes (valuable contributions), and reprinted in the more permanent form of the Half-year Book; on "Weaning," by Dr. Faulkner, a digest of opinion and practice of the present day with useful suggestions, which has gone the rounds of

Medical periodical publications; and two papers, by Dr. S. E. Stone, on "Malignant Vesicle," with cases and resumé, throwing much light on an obscure and dangerous disease, and proving the author to be a good observer and philosophic practitioner. Besides these papers, and others worthy of mention, a number of timely notices of books must not be omitted, bringing to the attention of the profession important works before they were received elsewhere; as for instance, Niemeyer's *Elements*, destined to have a profound influence upon theory and practice here as well as abroad; the "Dictionnaire Annuel," the most valuable of the yearly compilations, and the "Nomenclature of Diseases," that remarkable work of England's most eminent practitioners; to say nothing of the *Reports of the Society's Discussions and Doings*, by Drs. Adams, Campbell and others, which will bear comparison reputably with the *Reports* of other similar societies.

With the above enumeration, which might be increased, and not fearing the charge of mutual admiration, for, as Whipple says, "for one association for mutual admiration there are twenty for mutual contempt," he thought that the members might well congratulate themselves on the relative success of the Society, considering that we were only "country doctors." But why should not country doctors do something for the advancement of the profession, and even of science? "To practise in a country town" was the ludicrously lamentable fate of the hero of a popular professional poem written not long ago for the amusement of a city society near by, but country doctors are now-a-days looking up, and if they will only "speak out" will be better appreciated. "We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession," is the stereotyped heading of one of our prominent medical periodicals; and within a few weeks (Feb. 12th, 1870) the *British Medical Journal* speaks yet more strongly, in an elaborate editorial, which it would be well for all doubters to read thoroughly and ponder upon.

In his endeavors to persuade members, whom he knew possessed this fund of information, to bring it before the profession, the President said he had often been met with a common excuse that writing was exceptional and difficult, well enough for those who had a talent for it; and it might be worth while to remind the Society that the best things published were not always the

easiest written. Professional authors and scholars have often wrought their papers over many times. Chapters of the *History of Ferdinand and Isabella* were written and re-written seven or eight times; some also of *Wayside Thoughts*, by a lifelong student, six times; Buckland's *Treatise*, so many times as almost to exceed belief; and so, too, many other works of value. If any member had the substance, let him not be afraid of the labor of communicating it; and the substance, be assured, is about and before every observant practitioner. Every one may contribute to the common stock, and there is need of all that can be added to it. "An exact knowledge of the mode of handling of remedies does not exist," says the *Practitioner*, not a year ago! and again last month, "we really have no principles of therapeutics at all." Think of this and then say if there is not need of the assistance of every one; of older members, that they bring in the results of their experience—it cannot harm them to speak boldly and plainly; of the younger members joining us in such numbers, with all the improved modern facilities and such superior attainments, that they, finding in these topics scope enough for their highest ambition, and difficulties enough to tax their strongest powers, may not let their generation pass with such statements, as he had quoted, possible. Much of this knowledge must be acquired at the bedside of the sick, rather than by experiments upon the well. Examine, therefore, carefully; *prove* all things, and state unreservedly the results to the profession. Do not, said he, fear the old cry of scepticism and heresy. It is the stale snarling of those whose positions are felt to be insecure. It can never do much harm, and may serve to carry one's own rush-light into corners that would otherwise perhaps remain in darkness.

We miss to-day, he continued, a member who set us a bright example in this regard, and whose loss will be to many a life-long affliction. Says one who knew him well: "he was of great mental and moral worth; intellectual, just, honorable; cheerful, kind-hearted, generous, sympathetic, affectionate—a gentleman in all his nature and bearing;" and, it may be added, frank, fearless, philosophical and true. His accurate and reliable observations, ingeniously related, often changed the whole tone of a discussion. Others we have lost in these five years: Stimson, "the excellent and beloved patriarch of Dedham"; the indefatigable and esteemed Woodward, of Quincy; the affable, devoted, dignified and unserv-

ing Fifield, of Weymouth; and still others not to be forgotten; but prominent among all in intellect and wisdom, and in earnest interest in our Society, was the deeply loved and sincerely lamented Ebenezer Stone, of Walpole.

The "exact knowledge" he had been speaking of could only be obtained by combined effort. Each practitioner must feel that he owes something to the common stock, and an obligation upon himself to add his portion, however fractional, to the heap, if he expects progress in the Society and the profession. Under the coming administration he hoped that the Society would acquire new vigor and increase in usefulness. To this end they might count on no sincerer well-wisher or more cordial coöperator than their retiring President; and he trusted that each member, by his efforts through the Society, might, in the language of the venerable Holyoke on his 100th anniversary, "enjoy the pleasing consciousness that he has contributed somewhat to the advancement and improvement of the general welfare."

The President elect, Dr. Holmes, on taking the chair, thanked the Society for the honor they had done him, and pledged his best endeavors to promote its interests and advancement; but he would remind the members that the result must depend on their earnest individual and combined support, rather than on the zeal of the officers. He felt confident, however, that the same generous encouragement would be given to the coming that had been accorded to the outgoing administration.

At 2, P.M., the Society adjourned.

MASSACHUSETTS MEDICAL SOCIETY.

REPORT OF FIRST DAY'S PROCEEDINGS.

A SESSION of the Society was opened in this city on Tuesday, May 24th.

At 10 o'clock operations and surgical visits were held at the Massachusetts General and City Hospitals, which were attended by the Fellows of the Society.

At 12 o'clock the members assembled in Horticultural Hall, where they were called to order by the President, Dr. Charles G. Putnam, of Boston. The papers, which had been previously announced, were then read by their authors in the following order:—

1. Dr. Thomas H. Gage, Worcester—"Addison's Disease."

2. Dr. Thomas Dwight, Boston—"Preservation of Anatomical Specimens."

3. Dr. Silas E. Stone, Walpole—"Malignant Pustule, Charbon Fever."

4. Dr. Clarence J. Blake, Boston—"Late Contributions to Aural Surgery."

5. Dr. Edward Jarvis, Dorchester—"Provision for Care of the Insane."

The reading was interrupted at twenty minutes of two, and resumed at 4 o'clock for the completion of the papers and the discussion of the same.

Evening Meeting.—The annual business meeting of the Councillors of the Society was held at their rooms in Avon Street at 7½ o'clock, P.M., Dr. Putnam in the chair.

The report of the Treasurer, which was read and accepted, showed that the receipts of the Society for the past year were \$9,075.33, including a balance of \$1,916.37 from the account of last year. The expenditures had been \$6,740, and there remained in the Treasurer's hands \$2,335.33 for the new year.

The Committee on Resignations presented their report, recommending for the retired list the following names:—W. G. Smith, Cabotville; Wm. F. Perry, Mansfield; Stephen Ball, Boston; Harrison Dickey, Lowell; S. G. Burnap, Holliston.

The following members have presented their resignation of membership:—Thomas G. Nicholls, Freetown; G. C. S. Choate, Taunton; A. S. McLean, Springfield; Wm. H. Holbrook, Palmer. Report accepted.

The President announced the usual standing committees on Publication, Resignation and Finance. The Councillors then proceeded to the annual election of officers, with the following result:—

For President, S. A. Fisk, of Northampton; Vice President, E. Hunt, of Danversport; Corresponding Secretary, C. D. Homans, of Boston; Recording Secretary, C. W. Swan, of Boston; Librarian, J. C. White; Treasurer, F. Minot; Orator, H. J. Bigelow; Anniversary Chairman, Luther Parks; Committee of Arrangements, C. D. Homans, R. M. Hodges, A. P. Hooker, A. Coolidge, J. N. Borland.

By vote of the Councillors the next meeting of the Society will be held in Boston on the first Wednesday in June next.

SECOND DAY'S PROCEEDINGS.

The annual meeting of the Society was held in Horticultural Hall on Wednesday, May 25th, at 10 o'clock, A.M., the President in the chair.

After the reading of the Secretary's records of the last meeting, the President introduced the delegates from other Societies, of whom Dr. Diderman of Syracuse, N. Y., Dr. Corliss of Greenwich, N. Y., Dr. Porter of New London, Conn., and Dr.

Cushing of Vermont, addressed the meeting.

Dr. David W. Cheever, of Boston, exhibited to the Society a "*New Mode of demonstrating Hernia*" by colored illustrations, designed and executed by Dr. Geo. L. Underwood, of this city, a Fellow of the Massachusetts Medical Society.

Dr. Cheever said that the idea of demonstrating hernia by colored sections had suggested itself to him on account of the extreme difficulty he had always experienced in teaching this subject to a class.

These pictures were in water-colors, drawn by hand, and mathematically enlarged from the standard plates of Cooper, Scarpa and Cloquet, to two and a half times life size. They were in no sense diagrams, but correct anatomical plates of hernia.

Their distinctive peculiarity consisted in their being so drawn on different planes that each covering of fascia or muscle could be turned back in separate layers, thus imitating the order of Nature, and making apparent to a large number of persons minute details of anatomy, which they could otherwise see only one by one.

Dr. Sullivan, of Malden, presented a communication from the Middlesex South District Medical Society, in reference to that portion of the By-laws which allows graduates of Harvard Medical School and the Berkshire Medical School to become members of the Society on presentation of their diplomas from the same. He moved "that the By-laws of the Massachusetts Medical Society be and are hereby amended, to wit, by striking out the following paragraph of Article 1st of said By-laws:—'But any person having been graduated as Doctor of Medicine at Harvard University or the Berkshire Medical Institution shall, if otherwise qualified, be admitted without further examination as to his medical attainments.'"

At this point the Society adjourned for five minutes, and, on being called to order, the motion of Dr. Sullivan was passed.

Dr. Sabin, of Williamstown, with a few appropriate remarks, presented a series of resolutions, commemorative of Dr. Alden March, of Albany, a native of Massachusetts, and always a hearty sympathizer with the members of this Society. Dr. Corliass, of the New York State Medical Society, concurred with Dr. Sabin in his estimate of Dr. March's character, and the resolutions were then passed.

The Society then listened to the Annual Address, by Dr. W. W. Wellington, of Cambridge.

(To be continued.)

Medical and Surgical Journal.

BOSTON: THURSDAY, MAY 26, 1870.

CLINICAL RESEARCHES UPON DISEASES OF THE ŒSOPHAGUS; BY DR. W. HAMBURGER.

We translate what follows from the *Gazette Hebdomadaire*, which Journal in turn takes it from the *Medizinische Jahrbücher*.

We have pointed out on a previous occasion, says the *Gazette*, the very interesting researches of Hamburger upon the auscultation of the œsophagus, * * * and now are about to notice the teachings of that observer with regard to diseases of the organ in connection with the application of auscultation to their diagnosis.

To repeat the previous summary of the auscultatory signs during normal deglutition: the stethoscope being applied to the left side of the neck at the level of the os hyoides, while a teaspoonful of liquid is being swallowed, a loud gurgling is heard. It seems as if water were forcibly penetrating the ear of the observer. On auscultation of the œsophagus, between the cricoid cartilage and the eighth dorsal vertebra, on the left side, deglutition is accompanied with a noise analogous to that which would be made by a small fusiform body embraced by a ring of the œsophagus, and passing rapidly down that canal. The contractions of the œsophagus made progressively and in a circular direction upon the ingested liquid produce a peculiar noise, the analysis of which allows of our distinguishing the different stages of deglutition. The nature of this sound is that of an easy gliding, which is readily fixed in the memory. With some care we may learn to distinguish the tone or the *timbre*; the form of the liquid mass swallowed; the energy of the œsophageal contractions; the rapidity of the process of swallowing in the œsophagus; and the direction followed by the liquid ingested. Now each one of these elements is modified when the œsophagus becomes the seat of lesion.

The function and the structure of the œsophagus explain how the affections of this duct—whether primary or resulting

from disease in its neighborhood—all of them result in contraction or dilatation—stenosis or ecstasis. From this stand point, Doctor Hamburger divides oesophageal affections into two principal classes—stenosis and ecstasis. The first class comprises three divisions:—inflammatory stenosis; spasmodic stenosis, or that arising from muscular disorder; and organic stenosis, which is extrinsic or intrinsic, according as the cause is in or outside the oesophagus.

Stenoses.—As we have already mentioned in a former analysis, particular sounds perceived by auscultation, correspond to different degrees, or different phases of contraction: that is to say, to a first stage (swelling of the mucous membrane) correspond retardation in the deglutition of the alimentary bolus and the production of a few bubbles; to the second stage corresponds the noise of gurgling; and to the third the sound of regurgitation. These signs are found in different degrees in the stenoses.

To commence with inflammatory contraction, auscultation combined with exploration of the sound may give important information as to the progress of the affection and as to the prognosis. In *diffused oesophagitis*, neither auscultation nor catheterism is necessary to the diagnosis. The pain, the dysphagia, and the combination of the indications and circumstances suffice for this end. But auscultation is very useful to establish the precise seat of the lesion. The point where the sound of regurgitation, or that of abnormal deglutition is heard, indicates where the lesion begins. And, in the course of the affection, auscultation answers very well to inform us of the amelioration as well as the progressive invasions of the lesion, by enabling us to ascertain the manner in which deglutition is performed.

In *limited oesophagitis* auscultation presents from the outset a peculiar sign, the sensation of a shock or jar communicated by the swallowed bolus at the moment when it reaches the diseased part. Whatever may be the cause of this sensation, whether it result from the impulse produced by an energetic contraction of the gullet at the moment when the mass swallowed reaches the painful spot, or whether it be

due to an involuntary movement of the patient's body called forth by the pain, its indications are none the less significant. Here, still, the sounds of gurgling—of *glouglou*—and of regurgitation mark the stages of formation in the contraction.

In *acute inflammation of the oesophageal mucous membrane*, auscultation furnishes signs perfectly clear and characteristic. At the outset of the affection, there occurs during deglutition a constant regurgitation of small bubbles of air. There is a peculiar sound of continuous gurgling that is sometimes heard at a distance. In infants at the breast, when there is catarrh of the stomach, if we auscult while they are nursing, this sound of gurgling may be perceived coincident with hesitation in deglutition, provided the gullet participate in the gastric affection. When the lesions are more grave, an abnormal sound during deglutition may be perceived. It is difficult of description; but consists in a peculiar friction noise, which is distinguished by its hardness from the gliding sound of normal deglutition. When there is regurgitation of small portions of ingested matter, the true seat of the lesion may be estimated. If there have been vomiting, only the normal sounds are heard for a few hours after. In the adult, the slackening of the process of deglutition cannot be mistaken. These signs permit the diagnosis of lesions of the oesophagus in a great number of diseases—typhus, hydrophobia, syphilis, diphtheria, scarlatina, measles, variola, &c.

Under the name *spasmodic stenoses*, Dr. Hamburger describes two forms of spasmodic contraction—*stenosis spastica migrans* and *stenosis spastica fixa*. Auscultation in these cases takes cognizance of sounds analogous to those produced by organic contraction; and does not, therefore, of itself suffice for the diagnosis. It is simply an addition to the means of distinguishing spasmodic contraction. As to the differential diagnosis of contraction by compression and by alteration in the neighborhood of the gullet, auscultation does not appear to have furnished as yet important information.

The reviewer in the *Gazette* thinks the preceding data sufficient to show the im-

portance of auscultation of the œsophagus. Bearing in mind that several writers have mentioned as remarkable and exceptional the sound of gurgling perceived during deglutition in patients affected with contraction of the œsophagus, it is easy to understand the utility of a method of exploration which enables us always to recognize this symptom. Besides, there is no doubt that further investigation may definitely fix the semeiological importance of the auscultatory sounds. Without attempting to underrate the value of the ordinary means of diagnosis, and in particular of catheterism, the utility is evident of a new mode of exploration, which is much more simple. It is destined to attract the attention of clinical observers.

From an article on "The Insane and their Management," in the *London Medical Times and Gazette*, we take the following extracts:—

"The proposal to increase the size of our asylums is most objectionable; they are already too large for efficient supervision and classification, their cost has been enormous, and there is good reason for believing that in them the percentage of recoveries has diminished rather than increased. On the other hand, whenever any evil attracts general attention in this country, we are pretty sure to have some panacea thrust upon us as being the one efficient remedy, and recently we have heard far too much of Gheel. The system there adopted has long been known in this country. Men interested in the cure of the insane have long ago considered it, and, everything being taken into consideration, it has been emphatically condemned. * * *

"The plan of forming insane colonies as at Gheel has been strongly advocated, but we are much more in favor of the cottage system as adopted in Scotland. As matters now stand, the labor of the insane pauper is not fully utilized. Most of them are capable of doing something; but they cannot be employed in many instances, because there is nothing for them to do. In the domestic life of the cottage there is always something to do—something which the patient can do; but it is essential that the care taker should be properly selected, and that his remuneration should be sufficient to make it an inducement for a respectable individual to receive a lunatic into his

household. It is in these respects that the system has not perfectly succeeded in Scotland, as has been shown by Dr. J. B. Tuke. We further consider it of prime importance that patients should be separated; that they should not be farmed out in batches; above all, that there should be no colony, but that the separate patients should be well looked after by proper inspectors. And all this might be done at a smaller cost than each patient now implies, even excluding the interest of the money expended on buildings and grounds—a sum, by the bye, generally overlooked in asylum accounts. There will, however, be somewhat more difficulty in obtaining proper guardians for the chronic insane in England than in Scotland, for the average of education is decidedly lower among the agricultural population in the one country than in the other; and, of course, such a scheme implies a country residence, for chronic imbeciles of any class are sadly out of place in the bustle of town life. * * * * *

"A cry has been raised that lunacy has been made a specialty, and that it would be far better to take men from the rank and file of the profession to fill the post of superintendent. But who has made it so? The profession has not studied lunacy; until the other day there were no lectures delivered on the subject in any of our schools; even now there is no satisfactory text-book on lunacy in the English language; and, finally, where have the profession the means of studying the insane (which is something different from insanity) save in asylums? Reading and writing may come by nature, but the powers of administration necessary to conduct a large institution are not instinctive. Here, as in every other department of medicine, training is necessary, and, by rights, the training ought to come before a man is placed in authority. Had the same attention been paid to lunacy as to other departments of medicine, it would have been now on a far better footing, but those who have devoted themselves to the subject are not to be blamed because others have not done the same. When those morbid conditions which are associated with insanity are studied like other lesions, as a branch of ordinary medical education, the anomaly will cease."

THINGS NOT GENERALLY KNOWN.—The *Pharmaceutical Journal* publishes a remarkable instance of unforeseen danger arising from the facility with which oxide of silver is reduced by contact with vegetable extracts

in common use. A medical man prescribed twenty-four pills, each containing two grains of the oxide of silver, a twenty-fourth of a grain of muriate of morphia, and a sufficiency of extract of gentian; the pills being coated with silver in the usual manner. The pills were delivered to the patient in an ordinary pill-box, but the lady, being in her nursery, and having no pocket in her dress, placed the box in her bosom, probably next the skin. In three-quarters of an hour a severe explosion occurred; her under-clothes were reduced to tinder, and her right breast was seriously burnt. The patient fortunately had presence of mind enough to seize the part with both hands, and thus extinguish the flame. We learn from Mr. Hills that a similar occurrence has been known in compounding the extract of colocyath with the oxide of silver, and that with creasote or oil of cloves this salt is reduced to the metallic state, with the production of heat amounting often to an explosion. In fact, many of the essential oils reduce the oxide of silver, and one of the processes for silvering glass is founded on the fact, oil of cloves being usually employed in the operation. We may mention that when glycerine and permanganate of potash come in contact, heat is evolved, sometimes resulting in flame. An instance has occurred in which a wound was covered with the glycerine of starch, and then sprinkled with powdered permanganate of potash, when the heat produced became unbearable.—*Lancet*, March 26, 1870.

ON THE USE OF BUTTERMILK IN REARING INFANTS.—Dr. Ballot, of Rotterdam, in the *Med. Times and Gazette*, March 26th, 1870, recommends buttermilk as a food for infants. He says that it is easily digested, on account of the presence of lactic acid. This food is prepared thus:—To a pint of buttermilk is added a spoonful (0.16 gramme) of wheat flour, and eight or ten decigrammes of sugar. When the child has diarrhoea rice meal may be added instead of wheat flour. It must be kept boiling some minutes. The best mode of administration is in combination with suckling—say twice a day—beginning with very little, gradually increasing the quantity. The food must be administered warm (96° Fahr.), which is done by putting the bottle in hot water. The best time for administering it will always be when the baby takes a longer sleep—as in the morning, after it has been refreshed, and towards night, at six or seven o'clock,

when it is put into the cradle. It is to be administered in all cases where the mother has either not milk enough for the baby, or is rather feeble, and is either unwilling to take a nurse or has no means for it. The child to whom buttermilk is to be given should be healthy. Another great advantage of buttermilk in addition to mother's milk is, that the illnesses that often occur when the children are weaned are mostly avoided.—*Physician and Pharmaceutist*.

TREATMENT OF ORCHITIS BY BLISTERING. By J. G. COOPER, M.D.—Having recently seen articles in the medical journals describing Jordan's treatment of orchitis by blistering the scrotum with nitrate of silver, I am reminded of a case treated by me in 1860, when attached to the army, and travelling up the Missouri river.

A young officer had just contracted gonorrhoea of the virulent type prevailing among the Indians. It being a fresh case, and the first attack, I thought it a fit one for the so-called "abortive" mode of treatment. I therefore injected at once a strong solution of nitrate of silver, taking good care to prevent it from passing farther back than the scrotum. The pain caused was intense for some hours; but the desired effect of destroying the virus was not produced, for soon after violent orchitis came on, either from the natural course of the disease or from its being "driven back," literally or metaphorically. This new inflammation was so severe as to deprive the patient of rest and almost of reason, while the necessity of his very soon taking the saddle made it important to act energetically. Fearing the delay required by the usual modes of treatment, I decided on counter-irritation as the quickest, and having none of the more rapid vesicants at hand, applied the Emplast. Canthar. 4 x 4 inches, on the inner surface of each thigh near the groin. As soon as vesication commenced the orchitis began to subside, and in a few hours was quite relieved and did not return. I may add that the vesication extended to a considerable part of the scrotum, but I had no doubt that the more distant blistering was the cause of the relief experienced.

The gonorrhoea returned, and was treated by milder means with success. The officer afterwards served in the war, but whether any ultimate effects followed the disease, I have never ascertained.—*Pacific Medical and Surgical Journal*.

Medical Miscellany.

MR. EDITOR,—For fear Dr. Jones, our Secretary, may forget to send you the following resolves passed at our annual meeting held in Kingston, to-day, I forward them, asking their insertion in the JOURNAL, if you think best.

Resolved, That our delegates to the American Medical Association be instructed to use their influence to prevent the adoption of any regulation based upon caste or color.

Resolved, That in the opinion of the members of the Plymouth District Medical Society, "all persons," wherever graduated, presenting themselves as candidates for admission to the Massachusetts Medical Society, should undergo a satisfactory examination before the Censors of the district in which they reside. And that our Councillors be instructed to use their influence to bring about a change to this effect in the laws of the Massachusetts Medical Society."

Resolved, That in the opinion of the members of this society, the frequent procuring of criminal abortion by persons practising medicine in this commonwealth, demands the serious consideration and action of the Massachusetts Medical Society.

Yours, &c.,

A. MILLET.

Bridgewater, May 11, 1870.

At the Annual Meeting of the Plymouth District Medical Society, held at Kingston, May 11th, 1870, it was

Resolved, That in the opinion of the members of the Plymouth District Medical Society, the frequent practice of procuring criminal abortion, by persons practising medicine in this commonwealth, demands the serious consideration and action of the Mass. Med. Society.

Voted, that a copy of these resolutions be presented to the parent society.

H. N. JONES,

Secretary Plymouth Dist. Med. Society.

PROF. C. L. FORD, of the Long Island College Hospital, Brooklyn, N. Y., and who has been long and favorably known as a distinguished teacher of anatomy in this country, left on board the Marathon for Europe on the 21st inst. He expects to return in time for his next course of lectures.

PHENIC ACID IN SMALLPOX.—MM. Chauffard and Douillard state that they have derived great advantage from the administration of large doses of crystallized phenic acid at an early stage of confluent variola. From seven to fifteen grammes are administered *per diem*, and this dose has been continued for eight or ten days without inducing any ill effects. On the contrary, it cuts short the secondary fever and suppuration, usually so fatal in confluent smallpox. A tonic regimen is followed, and lotions of phenic acid diluted in from 50 to 100 parts of water are also applied to the face and hands.—*Union Méd.*, April 5 and 7.

MEDICAL WOMEN AT VIENNA.—The *Wien Med. Wochenschrift* states that at present there are only

* Med. and Surg. Journal, vol. v. p. 338.

two medical women in Vienna, an Englishwoman and a Swiss. The former has been a most industrious attendant upon the syphilitic division of the Hospital, and the other, who is laying herself out as an operator, recently assisted an interne in a case of castration.—*Ibid*.

If the Publishers of the Dublin *Medical Press and Circular* would place the letters "U. S. A." after Boston, which now stands alone on the envelopes of their weekly exchange for us, it would secure our direct reception of their valuable periodical, and save the Postmaster at the English Boston the trouble of remailing the numbers.

ERRATA.—In the last number of this Journal, p. 381, lines 35-36, for "by falsely asserting that the majority report was adopted," &c., read *by falsely asserting that the majority report was unanimously adopted, &c.*

In the "Mortality of Massachusetts," report in last week's Journal, the number of towns in the heading and the date were incorrectly printed.

TO CORRESPONDENTS.—Communications accepted.—Reflex Contraction of Bloodvessels.

PAMPHLETS RECEIVED.—Three Cases of Imperforate Anus, with Remarks. By J. H. Pooley, M.D., Yonkers, N. Y. Pp. 20.

MARRIED.—In this city, 17th inst., Dr. William M. Ogden to Miss Margaret W. Greene, both of Quincy.

DIED.—In Peacham, Vt., March 27th, Dr. William Harvey, aged 37 years.

Deaths in sixteen Cities and Towns of Massachusetts for the week ending May 21, 1870.

Cities and towns.	Number of deaths in each place.	PREVALENT DISEASES.	
		Consumption.	Pneumonia.
Boston . . .	96	12	9
Charlestown . .	10	2	0
Worcester . .	17	5	1
Lowell . . .	16	5	1
Millford . . .	5	1	0
Chelsea . . .	7	3	1
Cambridge . .	7	2	0
Salem . . .	9	4	0
Lawrence . .	8	1	1
Springfield .	13	3	0
Lynn . . .	8	1	0
Fitchburg . .	2	0	0
Newburyport .	7	1	0
Somerville . .	7	1	1
Fall River . .	9	1	1
Haverhill . .	7	2	3
	228	44	18

From all the above-named places there are reported five deaths from scarlet fever, five from typhoid fever, and four from measles. GEORGE DERRY, M.D.,

Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending May 21st, 96. Males 53—Females 43.—Accident, 1—disease of the bladder, 1—inflammation of the bowels, 3—disease of the brain, 8—inflammation of the brain, 1—bronchitis, 6—cancer, 1—cholera infantum, 1—consumption, 12—convulsions, 2—debility, 3—diarrhea, 2—dropsy of the brain, 3—drowned, 1—dysentery, 1—scarlet fever, 4—gangrene, 1—gastritis, 1—disease of the heart, 5—intemperance, 2—disease of the kidneys, 3—congestion of the lungs, 3—inflammation of the lungs, 6—measles, 1—old age, 3—paralysis, 3—peritonitis, 2—pyemia, 3—rheumatism, 1—suicide, 1—unknown, 3—whooping cough, 2.

Under 5 years of age, 33—between 5 and 20 years, 9—between 20 and 40 years, 25—between 40 and 60 years, 12—above 60 years, 17. Born in the United States, 66—Ireland, 21—other places, 9.